## NaminG GompoUnds $\mathbf{Q}_{\text {CoUntinG }}$ atoms

$\qquad$

## Try This!

Determine the chemical formulas for the following:


| Calcium + Chlorine |  | Silver + Hydroxide |  | Copper (II) + Nitrogen |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Write lons Here | Write Formula Here | Write lons Here | Write Formula Here | Write lons Here | Write Formula Here |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## What is in a Name?

Naming Metals (with one ion charge)

- The name of the metal ion is written $\qquad$
- The name is written in $\qquad$ and spelled exactly the same as the element name ex. Al is $\qquad$


## Naming Non-Metal Ions

- The name of the non-metal ion is written $\qquad$ , after the metal.
- The name is written almost the same the element name except the ending is changed to
$\qquad$ to distinguish from Polyatomic lons
ex. Cl is $\qquad$ and O is $\qquad$


## Naming Polyatomic lons

- Positive polyatomic ions are written $\qquad$ . There is only one, which is $\qquad$ .
- Negative polyatomic ions are written $\qquad$ and the name of the ion is not changed. ex. $\mathrm{SO}_{4}{ }^{+2}$ is $\qquad$


## Naming Multivalent Metals

- If the metal is multivalent, like Iron $\left(\mathrm{Fe}^{+2}\right.$ and $\left.\mathrm{Fe}^{+3}\right)$, the ion charge of the metal must be in the name. This charge is indicated by $\qquad$ . ex. $\mathrm{Cu}^{+2}$ is $\qquad$ and read as "


## PUt it into PRactice

|  | IONS |  | NAME OF COMPOUND | FORMULA |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $\mathrm{K}^{+1}$ | $\mathrm{Cl}^{-1}$ |  |  |
| 2 | $\mathrm{Na}^{+1}$ | $\mathbf{N}^{-3}$ |  |  |
| 3 | Ca | OH |  |  |
| 4 |  |  | aluminum hydroxide |  |
| 5 | K | N |  |  |
| 6 |  |  | calcium oxide |  |
| 7 |  |  | sodium chloride |  |
| 8 | $\mathrm{Fe}^{+2}$ | 0 |  |  |


| 9 |  | iron (III) oxide |  |
| :---: | :---: | :---: | :---: |
| 10 |  | magnesium phosphate |  |
| 11 | $\mathrm{Fe} \mathrm{(III)}$ Cl |  |  |
| 12 |  | potassium phosphate |  |
| 13 |  | hydrogen hydroxide |  |
| 14 |  |  |  |

The Last Bit.

## 

A small number called a $\qquad$ , right next to a letter, indicates the number of atoms of an element in that compound.

If the subscript is next to a $\qquad$ then it multiples every element inside the bracket by that number.

How many atoms of each element are in the compounds below?

$$
\mathrm{Fe}_{2} \mathrm{O}_{3}
$$

